

**Abstract 273**

**TITLE:** AIDS Vaccine Research and Development at the NIAID

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**ISSUE:** Prevention measures such as condom distribution, education and behavioral change have proven successful in populations with the capacity, commitment and resources to implement them. Further, development and evaluation of new prevention approaches, such as women controlled microbicides, may produce additional approaches to help slow the spread of HIV. Historically, safe, effective, accessible vaccines are a proven approach to halting the spread of an infectious agent.

**PROJECT:** The National Institutes of Health has made development of an HIV vaccine among its highest priorities. Funding for HIV vaccines has increased to approximately \$194.1 million this fiscal year. The National Institute of Allergy and Infectious Diseases (NIAID) has established a comprehensive extramural program that encompasses basic, preclinical and clinical research on HIV vaccines. Novel programs have been implemented to attract new researchers and new ideas HIV vaccine research. Old programs have been redesigned to encourage stronger linkages between laboratory, animal model and clinical researchers. New programs designed to be attractive to those interested in applied developmental work have also been launched. Finally, developmental resources to assist both academic and private sector scientists are being expanded. The NIAID now has research and development programs that cover all stages of the vaccine pipeline. In addition, the new vaccine center will bring focus to NIH's strong intramural research activities.

**RESULTS:** A new innovation grant program has attracted new researchers and new ideas into the field of HIV vaccine development. Four program projects have been funded to bridge laboratory and preclinical research and nine bridge preclinical and clinical research. About 15 new vaccine designs are evaluated yearly in primate models, and a large comparative animal model study is about to be initiated. Over 26 immunogens have been evaluated in 30 clinical trials that have recruited over 3,000 volunteers. Two phase II trials have been initiated and 2 more are expected to begin this year.

**LESSONS LEARNED:** Prevention is essential in stopping the spread of HIV. An HIV vaccine would be a highly effective prevention tool and is attainable. NIH has made development of an AIDS vaccine an urgent, national priority and its extramural programs are now positioned to assist all sectors – government, academia, private companies and at risk communities to bring their expertise to bear and to work collaboratively on this critical goal.

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